



## Early Journal Content on JSTOR, Free to Anyone in the World

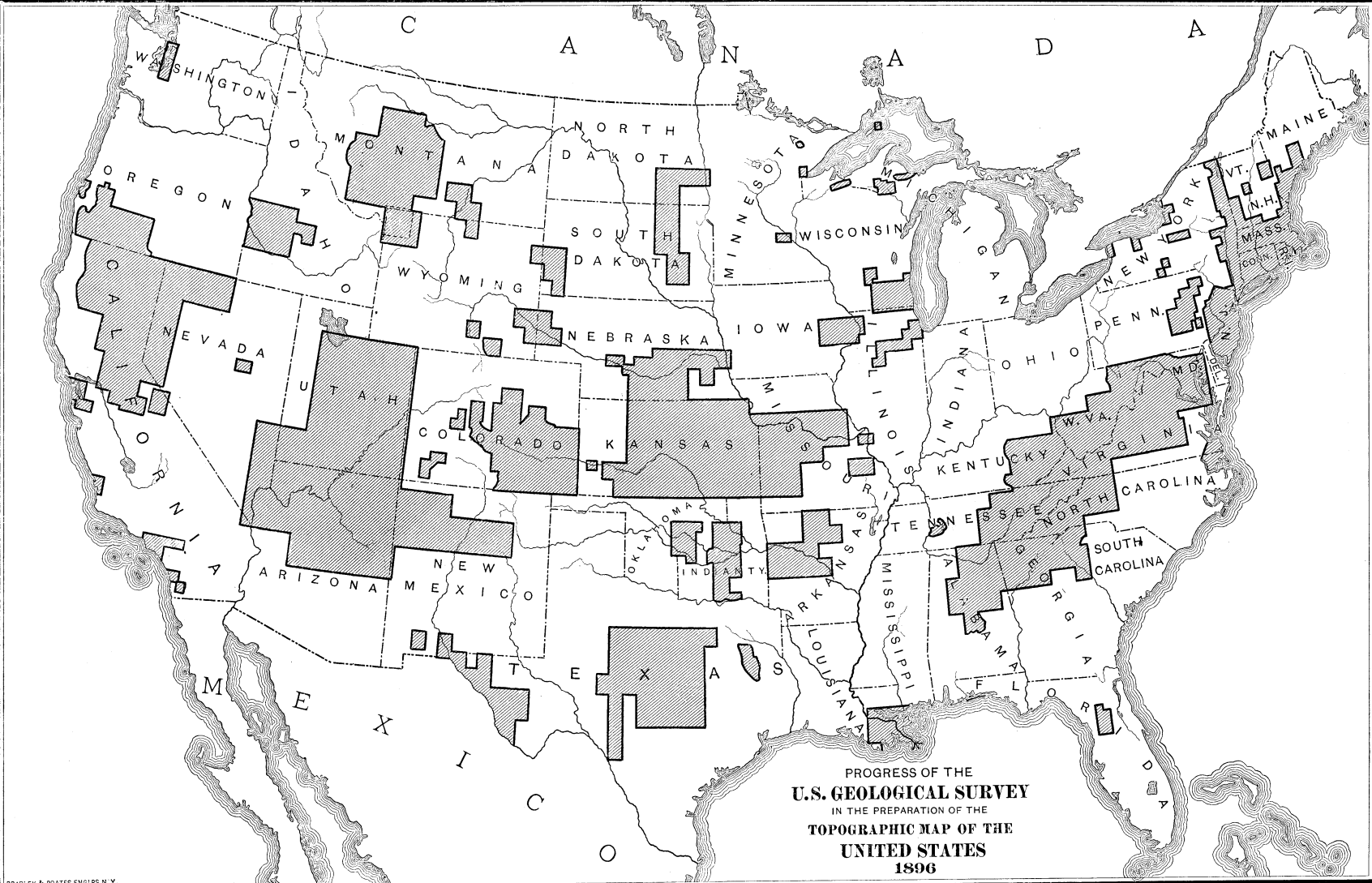
This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

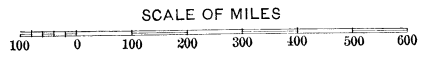
We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



BRADLEY & POATES ENGINEERS N.Y.



BULLETIN  
OF THE  
AMERICAN GEOGRAPHICAL SOCIETY.

---

---

**Vol. XXVIII**

**1896.**

**No. 4**

---

---

THE TOPOGRAPHIC WORK OF THE U. S. GEOLOGICAL  
SURVEY IN 1895.

BY

HENRY GANNETT.

The progress made by this organization in its work of preparing the Topographic Atlas of the United States, from the beginning of the work in 1882 to the present time, is shown upon the accompanying map. About one-fifth of the area of the country, excluding Alaska, has been surveyed and mapped, the scales of the maps being about one mile to one inch, two miles to one inch, or four miles to one inch.

The areas surveyed are in many distinct bodies. Four States only, viz.: Massachusetts, Rhode Island, Connecticut and New Jersey, have been surveyed entirely, and the fact that the work has been thus early completed in these States has been due, in a great measure, to their co-operation.

Of certain other States a large proportion of the area has been completed. This is the case with West Virginia, nearly all of which has been surveyed; with Kansas, of which five-sixths of the area have been surveyed, and Virginia, where three-fourths have been surveyed. More than half of Maryland has been mapped, but in no other State is the proportion as large. Some work has been done in nearly every State in the Union, though in Delaware, Ohio, Indiana and Mississippi the amount is trifling, and in Michigan, Minnesota and Washington it is by no means large.

During the season of 1895 there were in the field thirty-three topographic parties, and in addition three triangulation parties. The entire area mapped was 48,066 square miles, of which 42,386 consisted of areas which had not previously been mapped, while

5,680 square miles represented upon earlier maps were revised, since the scale and degree of detail given by these maps are not at present regarded as adequate for the delineation of the economic geology of the Appalachian and Rocky Mountain sections, where these areas are found. Classifying the area mapped by the scales upon which it is proposed to publish the results, it appears that 4,000 square miles are upon the scale of 1:62,500, or about a mile to an inch; the remainder being designed for the scale of 1:125,000, or about two miles to an inch.

The work of this season completes 75 atlas sheets, besides comprising parts of a number of additional sheets. The office work upon these sheets is completed and the sheets are ready for engraving.

The surveyed area is widely distributed. Commencing at the northeast, two sheets are in southern New Hampshire, one of them including the city of Keene, and the other Mount Monadnock. One sheet is in Vermont and five are in New York, mainly in the southern part of the Adirondack region. Upon the eastern shore of Maryland the equivalent of a sheet and a half, upon the two-mile scale, was mapped. In Virginia, one sheet, lying west of Richmond, and including the triassic coal field, was mapped, together with considerable revision in the southwestern part of the State. In western North Carolina there was much revision of earlier work done, as was also the case in Georgia and Alabama. In the latter State besides this revision work a sheet comprising about a thousand square miles, and lying within the Black Warrior coal field, was mapped.

In western Tennessee a considerable area covering the newly discovered phosphate beds, was mapped, and moreover, considerable revision was done in the eastern part of the State.

One party was occupied throughout the season in the dense forests and swamps on the upper peninsula of Michigan, and an area of 400 square miles, comprising practically two atlas sheets, was completed. In Missouri an area of 1,250 square miles, including the celebrated iron districts of Pilot Knob and Iron Mountain, and the zinc region in the southeastern part of the State, was mapped. In the Dakotas areas amounting to 4,500 square miles were mapped, completing several atlas sheets, parts of which had been surveyed during previous seasons. In southern Nebraska also a number of sheets were completed by the survey of some 2,500 square miles, while in the western part of the State, in the valley of the North Platte, three sheets, or 3,000 square miles, were mapped. In Kansas some revision was done, and also in central Texas. In southern Texas

an area of some 500 square miles was mapped near Eagle Pass, and in the western point of the State several sheets bordering upon the Rio Grande, the national boundary, were surveyed. The total area thus mapped in Texas is estimated at 3,000 square miles.

In Indian Territory topographic work has been going on coincidentally with the land subdivision work, and an area of 9,814 square miles, comprising all the Seminole, most of the Creek, and much of the Choctaw and Cherokee Nations, has been mapped.

In Colorado work has been carried on in two areas, one upon the Plains in the neighborhood of Trinidad, where an area of 2,000 square miles has been revised; the other area in the San Juan and La Plata mountains, consisting of two sheets upon the mile-to-an-inch scale. In eastern Wyoming, on and near the North Platte River, an area comprising three atlas sheets, upon the two-mile scale, has been mapped.

A special map has been prepared of Butte, Montana, and its immediate surroundings, upon the scale of two inches to one mile, for the detailed representation of this wonderful mining district.

In Idaho further inroads were made upon the unknown region of the Salmon River Mountains, and an area of nearly a thousand square miles was mapped, comprising some of the most rugged country in the State. In Washington an area of some 1,200 square miles, comprised in the comparatively low country at the west base of the Cascade Range, was mapped. This, owing to the extremely irregular character of the surface and the fact that it is densely covered with forests and fallen timber, render it one of the most difficult regions in the country to the surveyor. Work was commenced also in the Cascade Range itself. An astronomical determination of position was made at Ellensburg, at the east base of the mountains; a base line was measured and the expansion effected and work carried forward to the high summits of the Cascades. Another season will see the positions of many of these high peaks determined with accuracy and their heights measured.

In Oregon some work was done in the Rogue River valley, south of Roseburg, and on the Pacific coast near Coos Bay.

In California the work was carried on in two different regions. One of these lies south of the Bay of San Francisco, and comprises the regions adjacent to Leland Stanford University, the City of San José, and the Mount Hamilton Observatory, thus including the whole breadth of the beautiful Santa Clara valley and extending far into the Coast ranges on either side. The other area is farther south, in the neighborhood of San Luis Obispo.

When compared with the area yet to be mapped, it seems that this work is going on with exasperating slowness. At the rate of 40,000 square miles a year, it will require sixty or seventy years yet to complete the country, without taking Alaska into consideration, and this seems a long time to wait for a completed map of the United States. When compared, however, with the output by other organizations, both in this country and in European countries, the area annually surveyed appears very large. There is probably no country on the earth in which so large an area is annually mapped as by this organization.

HENRY GANNETT.